

WHAT IS CLAIMED IS:

1. A method for determining the level of sedation in a patient who is receiving a conscious sedation drug comprising:

applying a first vibration stimuli to a patient who has received, is receiving, or is about to receive a conscious- sedation drug, the vibration stimuli comprising vibratory pulses wherein each pulse is separated from a prior pulse by a time interval, and the time interval between the pulses can be varied, and wherein each pulse is applied with a predetermined duration;

instructing the patient to respond to the vibration stimuli; and

monitoring a patient's response to the vibration stimuli to determine the patient's level of sedation.

2. The method in claim 1 wherein the method comprises additional steps of: applying an additional vibration stimuli to the patient when the patient has received, is receiving, or is about to receive a dose of a conscious sedation drug, wherein the second vibration stimuli can be the same or different as the first stimuli, and wherein the time interval between the pulses and/or the duration of the pulses can be altered; and monitoring the patient's response to the additional vibration stimuli to determine the patient's level of sedation.

3. The method in claim 2 wherein the steps of applying the additional stimuli and monitoring the patient's response to the additional vibration stimuli are repeated to determine the patient's level of sedation.

4. The method in claim 1 wherein the time interval between the pulses and/or the duration of the pulses in the first stimuli is varied.

5. The method in claim 1 wherein the time interval between the pulses and/or the duration of the pulses in the additional stimuli is varied.

6. The method in claim 1 wherein the time interval between the pulses and/or the duration of the pulses in the additional stimuli is altered from the first stimuli.

7. The method in claim 1 wherein the intensity of the vibratory pulses of the additional vibration stimuli can be adjusted to be greater or less than the vibratory pulses of the first vibration stimuli.
8. The method in claim 1 wherein the vibratory pulse is an intensity modulation and/or frequency modulation pulse.
9. The method in claim 1 wherein the vibratory pulse is an auditory or acoustic pulse.
10. The method in claim 1 wherein the vibratory pulse is a tactile pulse.
11. The method in claim 10 wherein the tactile pulse is a sharp pulse for which the time from its lowest intensity to its highest intensity is less than about 0.3 second and the time from its highest intensity to its lowest intensity is less than about 0.3 second.
12. The method in claim 11 wherein the sharp pulse for which the time from its lowest intensity to its highest intensity is less than about 0.1 second and the time from its highest intensity to its lowest intensity is less than about 0.1 second.
13. A system for determining the level of sedation in a patient who is receiving a conscious-sedation drug comprising:
  - a controller for activating the request assembly at a first time when the patient has received, is receiving or about to receive a conscious sedation drug and an additional time when a patient has received, is receiving or is about to receive a dose of the conscious sedation drug;
  - a response testing apparatus including:
    - a request assembly that applies a vibration stimuli, the vibration stimuli comprising vibratory pulses, wherein each pulse is separated from a prior pulse by a time interval, and the time interval between the pulses can be varied and wherein each pulse is applied with a predetermined duration; and
    - a response assembly which is used by the patient to generate the response and which communicates the response to the controller.

14. The system in claim 13 wherein the request assembly for applying a vibration stimuli to a patient can be selected from a handpiece and/or an earphone.
15. The system in claim 13 wherein the response assembly for receiving the patient's response to a vibration stimuli can be selected from a handpiece, a cannula and an earphone.
16. The system in claim 13 wherein the time interval between the pulses and/or the duration of the pulses of the vibration is varied when the request assembly is activated the first time.
17. The system in claim 13 wherein the time interval between the pulses and/or the duration of the pulses is varied when the request assembly is activated the additional time.
18. The system in claim 13 wherein the time interval between the pulses and/or the duration of the pulses is altered when the request assembly is activated the additional time.
19. The system in claim 13 wherein the intensity of the vibratory pulses of the vibration stimuli activated the first time can be adjusted to be greater or less than the vibratory pulses of the vibration stimuli activated the additional time.
20. The method in claim 13 wherein the vibratory pulse is an intensity modulation and/or frequency modulation pulse.
21. The system in claim 13 wherein the vibratory pulse is an auditory pulse.
22. The system in claim 13 wherein the vibratory pulse is a tactile pulse.
23. The system in claim 22 wherein the tactile pulse is a sharp pulse for which the time from its lowest intensity to its highest intensity is less than about 0.3 second and the time from its highest

intensity to its lowest intensity is less than about 0.3 second.

24. The system in claim 23 wherein the sharp pulse for which the time from its lowest intensity to its highest intensity is less than about 0.1 second and the time from its highest intensity to its lowest intensity is less than about 0.1 second.